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To: [Tritt, Maja](#)
Cc: [Sonafrank, Nancy B \(DEC\)](#); [Nakanishi, Allan S \(DEC\)](#)
Subject: Chuitna Project- Manganese and other concerns.
Date: Monday, August 01, 2016 11:00:37 AM

Maja,

Based on our conversations, DEC will await your informal comments on the proposed BLM language to address how copper criteria will be determined for the Chuitna project. We understand that such comments may be delayed due to BLM-related rulemaking in Oregon. However, DEC expects that the consistency review of our proposed language will be based on its own merits as this is a site-specific project that is specific to Alaska's WQS and regulatory process.

In regards to manganese, I have noted the following based on the DEC- Response to EPA Comments document (5-28-15) I also have included issues that were raised by EPA that may/may not require discussion. Note that I did not include reference to zinc as I am awaiting confirmation from PacRim. I am also not including any reference to groundwater concerns as DEC strongly believes that concerns of this nature will be addressed through the permitting process.

A. Human Health Criteria: Manganese

- I. Fish Intake Rate
 - a. EPA suggests that DEC should consider information provided in the Cook Inlet FCR study
 - b. DEC has applied an FCR that is protective of local consumers and higher than the 95th percentile of consumption during high consumption months as indicated by Tyonek-specific data in the Cook Inlet study
- II. DEC Use of mean (ADF&G study) instead of 90th or 95th percentile
 - a. DEC is using the mean of the high consuming population in accordance to EPA 2000 methodology.
 - b. See I(a)
- III. Significant figures and rounding
 - a. EPA has requested that DEC provide additional information supporting use of the 300 ug/L value rather than 283 ug/L.
 - b. DEC asserts that following the rounding practices of the EPA Drinking Water Health Advisory and EPA HHC Methodology (2000), this value was then rounded to 0.3 mg/L (See EPA, 2004 p.33). Since the least precise value is 0.1, DEC rounded its values from .29 to 0.3.

B. Agricultural Use Change (Reclassification)

At this point I do not believe EPA has any concerns with the UAA work that PacRim contracted and DEC's decision to apply the agriculture criteria on a seasonal (6/15 to 9/1 basis)

C. Downstream Protection

- I. Application of a loading analysis for manganese
 - i. Since the new criteria will either use the BLM (Cu) or meet downstream criteria (Mn) DEC does not see this as being a concern.
- II. Relevance to lakes and wetlands (copper/zinc)
 - a. DEC asserts that the 'site' of the proposed SSC only applies to waters within the designated stream channel(s).
 - b. A comparison of results from the *Chuitna Coal Project Mine Sites Lakes Preliminary Water Quality Assessment Summary Report* (PacRim Coal, 2010) and Riverside 2009 and 2010 reports indicate that the major anions, cations, and ion concentrations of lake and stream surface waters are chemically similar to one another and typical of

surface and groundwater in the area.

D. Tribal Resource Rights

I. EPA needs to consider tribal treaty rights.

DEC response: This is a much larger issue and not within the authority of DEC to make a determination at this time.